

We claim:

- 1           1.       A system for printing time-based media, the system comprising:  
2               a media processing system for determining an electronic representation of the  
3               time-based media wherein the media processing system resides at least in part  
4               on a multimedia printer and at least in part on an external media processing  
5               system;  
6               the multimedia printer including a housing for supporting an interface for  
7               transferring time-based media between the external media processing system  
8               and the printer, and for supporting an electronic output system in  
9               communication with the media processing system to receive the electronic  
10              representation, the electronic output system producing a corresponding  
11              electronic output from the electronic representation of the time-based media;  
12              and  
13              a resource allocation module for determining processing allocation for at least  
14              one task among the printer and the external media processing system.
- 1           2.       The system of claim 1, wherein the resource allocation module determines  
2           whether the printer resource interacts as a master or as a slave with an external system.
- 1           3.       The system of claim 1, wherein the media processing system determines a  
2           printed representation of the time-based media; and the system further comprises a  
3           printed output system in communication with the media processing system to receive the  
4           printed representation, the printed output system producing a corresponding printed  
5           output from the printed representation of the time-based media.
- 1           4.       The system of claim 1, wherein the external media processing system is

2 a remote external service system coupled to the network, the external service system in  
3 communication with the media processing system for performing at least some  
4 processing steps for the time-based media.

1 5. The system of claim 1, wherein the external media processing system is an  
2 external device coupled to the printer network by the Internet.

1 6. The system of claim 1, wherein the interface comprises a communication  
2 interface allowing the system to be communicatively coupled to an electronic device, the  
3 electronic device providing the time-based media to the system.

1 7. The system of claim 1, wherein the interface comprises a removable media  
2 storage reader.

1 8. The system of claim 1, wherein the interface comprises a media input  
2 device selected from a group consisting of: a DVD reader, a video cassette tape reader, a  
3 CD reader, an audio cassette tape reader, and a flash card reader.

1 9. The system of claim 1, wherein the external source is a media broadcaster,  
2 and wherein the interface comprises a media broadcast receiver that can be tuned to a  
3 media broadcast.

1 10. The system of claim 1, wherein the interface comprises an embedded  
2 receiver selected from a group consisting of: an embedded TV receiver, an embedded  
3 radio receiver, an embedded short-wave radio receiver, an embedded satellite radio  
4 receiver, an embedded two-way radio, and an embedded cellular phone.

1 11. The system of claim 1, wherein the interface comprises an embedded  
2 device selected from a group consisting of: an embedded heat sensor, an embedded

3 humidity sensor, an embedded National Weather Service radio alert receiver, and an  
4 embedded TV Emergency Broadcast System (EBS) alert monitor.

1 12. The system of claim 1, wherein the interface comprises embedded screen  
2 capture hardware.

1 13. The system of claim 1, wherein the interface comprises an ultrasonic pen  
2 capture device.

1 14. The system of claim 1, wherein the interface comprises an embedded  
2 video recorder, wherein the external source of media is a series of images captured by  
3 embedded the video recorder, converted into an electrical format, and then provided to  
4 the media processing system.

1 15. The system of claim 1, wherein the interface comprises an embedded  
2 audio recorder, wherein the external source of media is a series of sounds that are  
3 converted into an electrical format by the embedded audio recorder and then provided to  
4 the media processing system.

1 16. The system of claim 1, wherein the electronic output system is configured  
2 to write the electronic representation to a removable media storage device.

1 17. The system of claim 16, wherein the removable storage device is selected  
2 from a group consisting of: a DVD, a video cassette tape, a CD, an audio cassette tape, a  
3 flash card, a computer disk, an SD disk, and a computer-readable medium.

1 18. The system of claim 1, wherein the electronic output system comprises a  
2 handling mechanism to accommodate a plurality of removable storage devices.

1 19. The system of claim 18, wherein the handling mechanism is selected from  
2 a group consisting of: a feeder, a bandolier, and a tray.

1           20.     The system of claim 1, wherein the electronic output system comprises a  
2 media writer selected from a group consisting of: a disposable media writer and a self-  
3 destructing media writer.

1           21.     The system of claim 1, wherein the electronic output system is coupled to  
2 a speaker system and sends an audio signal to the speaker system.

1           22.     The system of claim 21, wherein the electronic output system comprises  
2 an embedded sound player for generating the audio signal.

1           23.     The system of claim 1, wherein the electronic output system comprises an  
2 embedded web page display.

1           24.     The system of claim 1, wherein the media processing system comprises an  
2 embedded multimedia server.

1           25.     The system of claim 1, wherein the media processing system comprises an  
2 embedded audio encryption module.

1           26.     The system of claim 1, wherein the media processing system comprises an  
2 embedded video encryption module.

1           27.     The system of claim 1, wherein the media processing system comprises an  
2 embedded audio sound localization module.

1           28.     The system of claim 1, wherein the media processing system comprises an  
2 embedded video motion detection module.

1           29.     The system of claim 3, wherein the external media processing system  
2 includes a user interface that provides information to a user about at least one of the  
3 printed representation and the electronic representation of the time-based media, the user  
4 interface further accepting input from a user to cause the media processing system to

5 modify at least one of the printed representation and the electronic representation of the  
6 time-based media.

1 30. The system of claim 3, wherein the media processing system determines at  
2 least one of the printed representation and the electronic representation with assistance  
3 from an external media processing system that is an external computing device.

1 31. The system of claim 3 wherein the printer further comprises the following  
2 supported by its housing:

3 an input source for receiving time-based media,  
4 a first output source coupled to the input source, the first output  
5 source producing a printed representation of the time-based  
6 media, and  
7 a second output source coupled to the input source, the second  
8 output source producing an electronic representation of the  
9 time-based media, the electronic representation of the time-  
10 based media corresponding to the printed representation of  
11 the time-based media; and  
12 a display.

1 32. The system of claim 31, wherein the input source comprises a  
2 communication interface allowing the printer to be communicatively coupled to an  
3 electronic device, the electronic device providing the media to the printer.

1 33. The system of claim 31, wherein the input source comprises a removable  
2 media storage reader.

1           34.     The system of claim 31, wherein the input source comprises a media input  
2 device selected from a group consisting of: a DVD reader, a video cassette tape reader, a  
3 CD reader, an audio cassette tape reader, and a flash card reader.

1           35.     The system of claim 31, wherein the input source comprises a media  
2 broadcast receiver that can be tuned to a media broadcast.

1           36.     The system of claim 31, wherein the input source comprises an embedded  
2 receiver selected from a group consisting of: an embedded TV receiver, an embedded  
3 radio receiver, an embedded short-wave radio receiver, an embedded satellite radio  
4 receiver, an embedded two-way radio, and an embedded cellular phone.

1           37.     The system of claim 31, wherein the input source comprises an embedded  
2 device selected from a group consisting of: an embedded heat sensor, an embedded  
3 humidity sensor, an embedded National Weather Service radio alert receiver, and an  
4 embedded TV Emergency Broadcast System (EBS) alert monitor.

1           38.     The system of claim 31, wherein the input source comprises embedded  
2 screen capture hardware.

1           39.     The system of claim 31, wherein the input source comprises an ultrasonic  
2 pen capture device.

1           40.     The system of claim 31, wherein the input source comprises an embedded  
2 video recorder, wherein the external source of media is a series of images captured by  
3 embedded the video recorder, converted into an electrical format, and then provided to  
4 the media processing system.

1           41.     The system of claim 31, wherein the input source comprises an embedded  
2 audio recorder, wherein the external source of media is a series of sounds that are

3 converted into an electrical format by the embedded audio recorder and then provided to  
4 the media processing system.

1 42. The system of claim 31, wherein the second output source is configured to  
2 write the electronic representation to a removable media storage device.

1 43. The system of claim 42, wherein the removable storage device is selected  
2 from a group consisting of: a DVD, a video cassette tape, a CD, an audio cassette tape, a  
3 flash card, a computer disk, an SD disk, and a computer-readable medium.

1 44. The system of claim 31, wherein the second output source comprises a  
2 handling mechanism to accommodate a plurality of removable storage devices.

1 45. The system of claim 44, wherein the handling mechanism is selected from  
2 a group consisting of: a feeder, a bandolier, and a tray.

1 46. The system of claim 31, wherein the second output source comprises a  
2 media writer selected from a group consisting of: a disposable media writer and a self-  
3 destructing media writer.

1 47. The system of claim 31, wherein the second output source is coupled to a  
2 speaker system and sends an audio signal to the speaker system.

1 48. The system of claim 47, wherein the second output source comprises an  
2 embedded sound player for generating the audio signal.

1 49. The system of claim 31, wherein the second output source comprises an  
2 embedded web page display.  
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